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Before the  
FEDERAL COMMUNICATIONS COMMISSION  
Washington, D.C. 20554

FEDERAL COMMUNICATIONS COMMISSION  
OFFICE OF THE SECRETARY

In the Matter of )  
)  
The Development of Operational, Technical )  
and Spectrum Requirements for Meeting )  
Federal, State and Local Public Safety )  
Agency Communication Requirements )  
Through the Year 2010 )  
)  
Establishment of Rules and Requirements )  
for Priority Access Service )

WT Docket No. 96-86

TO: The Commission

**COMPU-DAWN'S COMMENTS ON THE  
SECOND NOTICE OF PROPOSED RULE MAKING**

Compu-DAWN, Inc. ("Compu-DAWN") hereby submits its comments on the Commission's Second Notice of Proposed Rulemaking ("Second Notice") in the above-captioned proceeding. Compu-DAWN -- a non-governmental entity authorized to provide public safety services by several of the nation's police, fire and other emergency service agencies -- favors the Commission's proposal to allocate 24 MHz of spectrum for public safety uses and appreciates the Commission's task of building a framework to govern the public safety spectrum allocation. As the Second Notice aptly recognizes, the effectiveness of public safety agencies is tied to their ability to communicate with one another, as necessary, on a day-to-day basis or in times of emergency. Compu-DAWN supports the proposals outlined in the Second Notice that seek to achieve seamless nationwide communications interoperability among Federal, State and local public safety agencies. Compu-DAWN files these comments to highlight the additional or alternative means by which commercial entities can ensure that public safety personnel are able to communicate and discharge their obligations to protect life and property in a safe and cost effective manner.

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## **I. SUMMARY AND INTRODUCTION**

Commercial entities such as Compu-DAWN play a critical role in ensuring that public safety agencies are able to protect life and property in the most safe and efficient manner. Since 1983, Compu-DAWN's exclusive mission has been to provide public safety software applications to law enforcement, fire departments and emergency management systems.<sup>1/</sup> Its products greatly enhance the workings of emergency public safety dispatch and communications systems.<sup>2/</sup> By permitting voiceless dispatch, instantaneous roadside access to local, state and national criminal databases, pre-plans for emergency or disaster situations, and photo transmissions in the field,<sup>3/</sup> these systems have been praised for putting another cop on the beat for each officer that is equipped with a Compu-DAWN system.<sup>4/</sup> More than 60 public safety agencies now utilize some or all of these modules. One of

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<sup>1/</sup> Compu-DAWN's commitment to public safety is evidenced by its involvement in the National Public Safety Telecommunications Council ("NPSTC"). As a member of NPSTC's subcommittee on spectrum use, Compu-DAWN is able to understand the evolving needs of the public safety community and develop its products accordingly. Compu-DAWN also is involved in educating both the domestic and international community on commercial technologies. Indeed, in July, Compu-DAWN participated in an official U.S. mission to South-Africa on communications issues.

<sup>2/</sup> Compu-DAWN's mobile product AMO™ (Alecs 2000™ Mobile Online) provides emergency response drivers with interactive direct access to headquarters as well as local, state and national crime information databases. Compu-DAWN's system also brings users a full range of advanced solutions: transmission of photos, text-to-speech, voice command recognition that converts to data, mapping and automatic vehicle locating services. See Description of Compu-DAWN, attached hereto as Exhibit A. For crafting its innovative information products and solutions, Compu-DAWN received the 1997 Software Product of the Year Award, the highest award presented in the Long Island Software Awards, attached hereto as Exhibit B.

<sup>3/</sup> These photo transmissions serve a critical function by allowing officers in the field to, among other things, create line-ups, find missing persons, verify signatures and study mug shots.

<sup>4/</sup> See Statement of Karl Augat, MIS Administrator, West Jordan, Utah Police Department, found in Wide World of Wireless, attached hereto as Exhibit C.

the chief advantages of Compu-DAWN's system over many agencies' systems is that it can operate on all the frequencies designated for public safety use.

Congress' recent amendments to the Communications Act expressly contemplate allocating public safety spectrum to private entities like Compu-DAWN that work in partnership with different public safety agencies.<sup>5/</sup> By instructing the Commission to make public safety spectrum available to nongovernmental public safety providers, Congress enables and encourages commercial providers to develop advanced technologies and applications tailored to public safety usage.<sup>6/</sup> The result will be the delivery of better public safety services at a better price, furthering the Commission's goals in the Second Notice.<sup>7/</sup>

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<sup>5/</sup> In amending Title III of the Communications Act, Congress instructs the Commission to allocate 24 MHz of spectrum for "public safety services." Congress defines "public safety services" as "services --

- (A) the sole or principal purpose of which is to protect the safety of life, health, or property;
- (B) that are provided --
  - (i) by State or local government entities; or
  - (ii) by *nongovernmental organizations* that are *authorized by a governmental entity whose primary mission is the provision of such services*;and
- (C) that are not made commercially available to the public by the provider."

Compu-DAWN fits squarely within Congress' definition of a provider of public safety services. See *Reply of Compu-DAWN, Reallocation of Television Channels 60-69, the 746-806 MHz Band*, ET Docket No. 97-157 (filed November 10, 1997).

<sup>6/</sup> In its report to the Commission and the National Telecommunications and Information Administration ("NTIA"), the Public Safety Wireless Advisory Committee ("PSWAC") concluded that it is incumbent on public safety agencies to utilize commercial services to meet their technological needs. See PSWAC Final Report, at ¶ 2.3

<sup>7/</sup> Second Notice, at ¶ 7 ("[W]e need to foster competition in order to spur innovation and bring down costs faced by public safety agencies.").

**II. COMMERCIAL ENTITIES HAVE THE TOOLS TO DEVELOP ADDITIONAL OR ALTERNATIVE SOLUTIONS TO THE PUBLIC SAFETY COMMUNITY'S INTEROPERABILITY PROBLEMS.**

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One of the goals embodied in the Second Notice is to develop a system for interoperable communications.<sup>8/</sup> To meet this goal, the Commission proposes allocating a portion of the public safety spectrum for interoperability communications.<sup>9/</sup> Compu-DAWN supports this proposal and applauds the Commission's efforts to respond to the interoperability problems facing the public safety community. But the Commission can do more. Specifically, the Commission should recognize the ability of commercial entities to develop additional or alternative means to achieve nationwide communications interoperability.

With the ability to license and lease public safety spectrum on any available public safety frequency, Compu-DAWN and other eligible commercial providers will have the financial incentive and means to develop a communications link between public safety officials in different jurisdictions, different levels of jurisdiction and different agencies.<sup>10/</sup> This frequency-agile link will allow the public safety community to exchange all types of

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<sup>8/</sup> Second Notice, at ¶ 11 ("We believe there are three principal public safety communications needs: Immediate spectrum shortages must be addressed; [a] system for interoperable communications must be established; and [t]echnologies that will enhance public safety communications capabilities must be made available in the public safety communications market"); *id.* ¶ 27 (noting the "critical deficiencies in today's public safety communications" caused by divergent and incompatible uses of frequencies, nodes and equipment by public safety agencies).

<sup>9/</sup> Second Notice, at ¶ 15.

<sup>10/</sup> Currently, Compu-DAWN's software is able to cure particular interoperability problems by translating one agency's wireless transmissions into a format that can be used by another agency with dissimilar wireless technologies. As wireless applications become increasingly sophisticated and transmit larger amounts of data, images and video, however, it will become more difficult and more expensive to solve these interoperability problems in software. FCC licenses to spectrum will greatly enhance Compu-DAWN's ability to develop and provide seamless, end-to-end public safety services.

information pertaining to their daily operations on a reliable, efficient and confidential basis. And it can operate without the detailed regulations that surround the Commission's interoperability allocation.<sup>11/</sup> Compu-DAWN urges the Commission to recognize the capabilities of commercial providers to enhance public safety communications when developing its framework for the use of the new public safety spectrum.

**III. PARTNERSHIPS BETWEEN COMMERCIAL ENTITIES AND PUBLIC SAFETY AGENCIES FURTHER THE COMMISSION'S VISION FOR EFFECTIVE AND EFFICIENT USE OF THE PUBLIC SAFETY SPECTRUM.**

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By allocating spectrum to those nongovernmental entities endeavoring to serve public safety agencies, Congress and the Commission encourage commercial entities to develop affordable technologies tailored to public safety usage. At the present time, because the provision of public safety services is so much less remunerative than other uses in a given band, commercial service providers lack incentives to develop technologies that assist the public safety community.<sup>12/</sup> As a result, commercial providers have failed to provide a market for public safety services.<sup>13/</sup> With access to spectrum, however, in addition to providing a method to achieve interoperable communications, commercial providers

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<sup>11/</sup> *Id.*, at ¶ 26 (noting that the following interoperability service rules must be examined: "location and amount of interoperability; types of communications; transmission technology; channel spacing; channel requirements; equipment standards; eligibility, use and licensing; and trunking and technical standards").

<sup>12/</sup> As pointed out in the January 1997 White Paper written by Gregory L. Rosston and Jeffrey S. Steinberg of the FCC, the marketplace alone has not been able to generate the incentives needed for workable partnerships between commercial services and public safety agencies. *See* Gregory L. Rosston & Jeffrey S. Steinberg, *Using Market-Based Spectrum Policy To Prompt the Public Interest* (January 1997) (hereinafter "White Paper").

<sup>13/</sup> *See* PSWAC Final Report, at ¶ 2.5 (use of commercial systems as a reasonable alternative for public safety agencies will depend on their being available at affordable costs).

substantially devoted to public safety services can provide public safety agencies with continuous access to the most up-to-date technologies for data and video communications.<sup>14/</sup> This, consistent with the goals of the Second Notice, will enable public safety agencies to develop advanced capabilities and to fulfill their mission in the most effective and efficient manner.<sup>15/</sup>

Indeed, Congress' amendments and the Commission's rules will offer Compu-DAWN the opportunity to fully exploit technological advances in high speed data and video transmission, as well as improve its modulation techniques, to handle the gamut of public safety concerns, including security, prioritization of channel capacity, software application and computer hardware issues, system integration, system and component cost issues, and various operational issues. And, as the competitive arena for public safety technologies evolves, other commercial entities will create new capabilities to compete for partnerships with public safety agencies. Ultimately, as a result, the public safety community will have access to the most advanced products at the most affordable price.

#### IV. CONCLUSION

FCC licenses potentially will allow Compu-DAWN and other eligible non-governmental public safety service providers to develop a communications link between public safety agencies in every part of the Nation. The Commission, in addition, or as an alternative, to the Commission's proposals in the Second Notice, should recognize these and

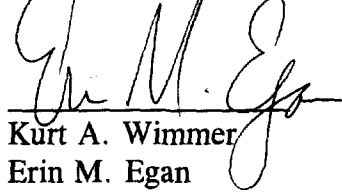
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<sup>14/</sup> PSWAC Final Report, at ¶ 2.3. Former Chairman Hundt also recognized that the "public safety community needs to work more closely with commercial providers to see how commercial providers may be able to serve public safety needs." Statement of Reed Hundt, Chairman of the FCC, before the House Telecommunications Subcommittee on February 12, 1997, at 35.

<sup>15/</sup> Second Notice, at ¶ 4.

the other technological capabilities of commercial public safety service providers when developing its framework for use of the public safety spectrum. By so doing, the Commission will promote new and enhance existing public safety services, thereby ensuring that the nation's public safety agencies will be able to respond to the public's safety needs with modern and innovative communications at the highest levels of efficiency and effectiveness.

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December 22, 1997

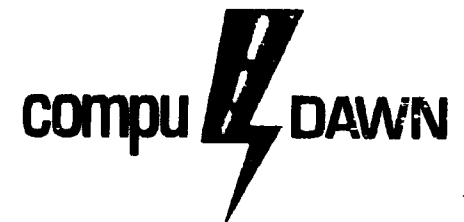




# **Compu-DAWN**

**Software Solutions  
for Public Safety.**

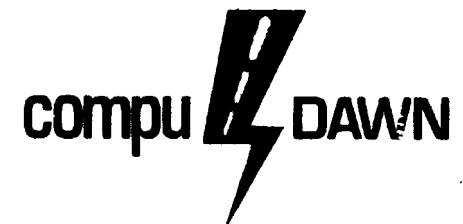
**A Fully Integrated  
Information Management System.**



# Our Mission

- To be the premier provider of Software Solutions and Communications Technology for Public Safety.

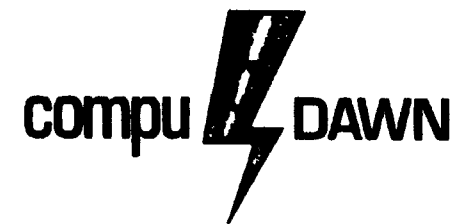
- ◆ Law Enforcement
- ◆ Fire
- ◆ EMS



# **The U.S. Market**

- The U.S. Market 21,860 police departments
- 35,690 fire departments
- All EMS and other public safety agencies

**Fewer than 20% are computerized**



# High Tech Cops

**Bringing the resources of headquarters to patrol cars**

Computer and Software Technology

+ Wireless Communication

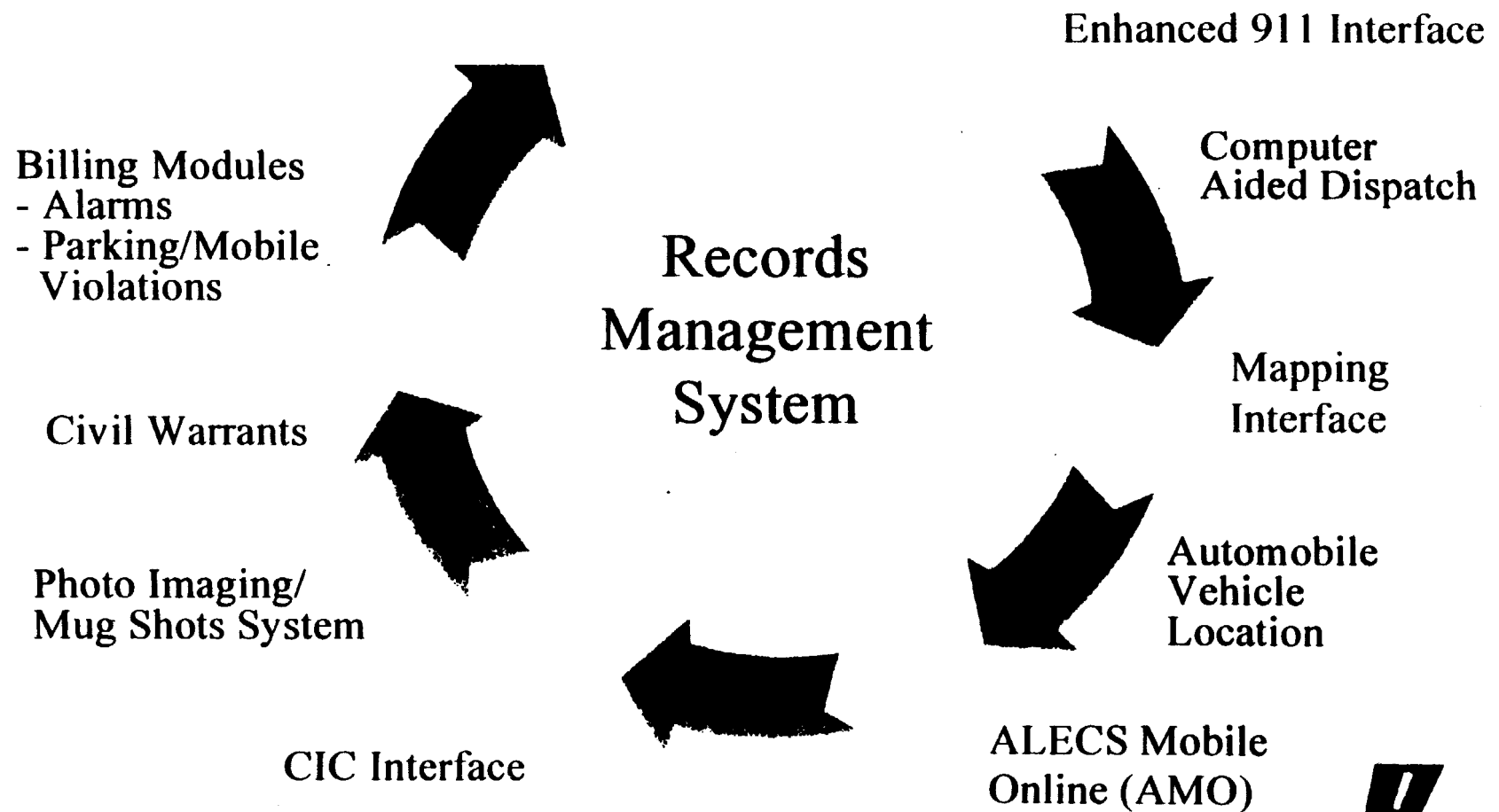
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= **Reduced Crime**

Source: Mobile Officer - July 1995

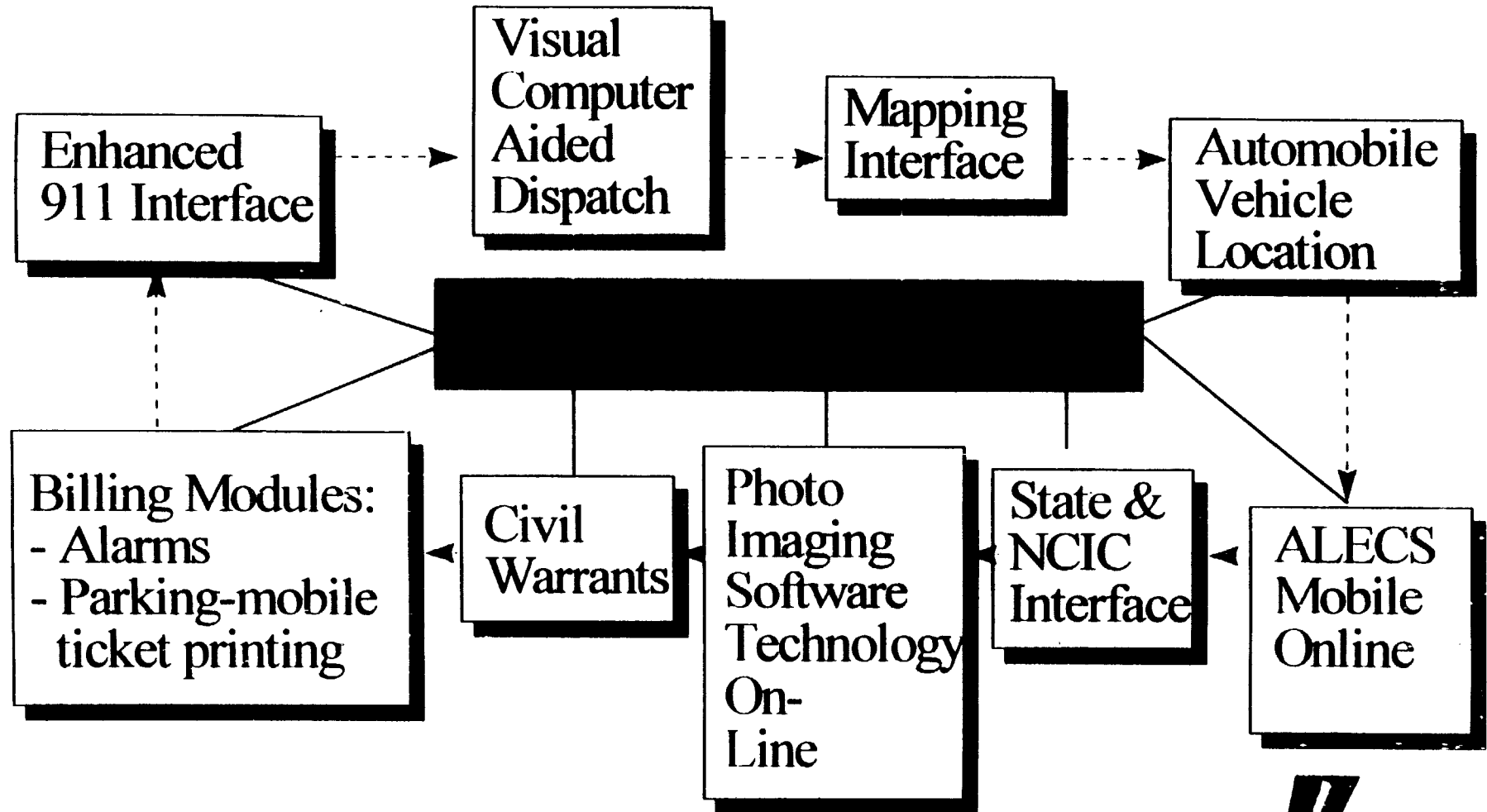
compu  DAWN

# ALECS 2000 Modules



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# ALECS 2000™ Modules




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# ALECS 2000TM

Advanced Law Enforcement Computer Solutions



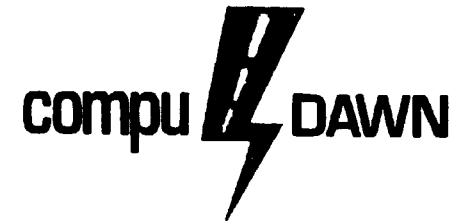
- State-of-the-art software solutions designed for public safety
- 14+ modules
- All modules interface with existing systems.
- Modules can be combined to form fully integrated solutions.

compu  DAWN

# ARMS

## Advanced Records Management System

- Organizes, processes and retrieves data in *real-time*.
- Provides information to field personnel so they can make informed decisions and quick responses.
- Information includes: person's history, location history, warrants, hazards, firearm permits, orders of protection, alarm/emergency contacts, property registration, etc.





# E-911 Interface

- Imports caller's name, number and location data from the telephone company.
- Retrieves any historical information on the caller or the location.
- Increased accuracy, decreased key strokes, decreased response time and increased safety.



# **VCAD**

## **V**isual **C**omputer **A**ided **D**ispatch

- Identifies available units.
- Assists the dispatcher in assigning resources promptly.
- Obtains information from database.
- Provides the nearest cross streets, hydrant locations, etc.
- Date/time/event numbers automatically stamped.
- Checks hazard, warrant, firearm permit, alarm, order of protection and history from databases.
- Gives call back number.
- Touch screen, full color and user friendly.



# V-CAD

## Visual Computer Aided Dispatch

FILE EDIT DRAW VIEW SYSTEMS

File Options Help

Unit	Status	Elaps Time	Priority	Type	Event #	Units
FR01	DISP	22:15	5	DISTURBANCEHOU	96-000401	COAS
102	DNAK	20:24	1	ROBBERYH	97-000017	FLOW
FR01	DNAK	23:41	1	ROBBERYH	97-000017	FLOW
203	DNAK	20:47	5	DISTURBANCEHOU	96-000401	COAS
102	ARRI	02:08	5	DISTURBANCEHOU	96-000401	COAS
ENG1	STAR	02:41	5	DISTURBANCEFBI	96-000403	
AMB1	LVHS	02:40	5	DISTURBANCEHOU	96-000401	COAS

Event #	Elaps Time	Priority	Type	Location
96-000404	01:11	1	ASSAULTH	COASTAL COMPUTER SY
97-000015	21:42	1	BUROLARYH	

Selected Event #  
96-000403

Label1

Comment

# VCAD

## Visual Computer Aided Dispatch

VCAD - Visual Computer Aided Dispatch

Tools

K101 AVAL 13:28

K102 AVAL 13:28

K103 AVAL 13:28

11 AVAL 13:28

13 AVAL 13:28

17 AVAL 13:28

26 AVAL 13:28

31 AVAL 13:28

32 AVAL 13:28

33 AVAL 13:28

3161 AVAL 13:28

12 AVAL 13:28

13 AVAL 13:28

60 AVAL 13:28

NEW NEW

Event #

Date 11/18/96

Time 1328

How Received: E911

Location

TOM'S BAKERY

Address: 44

Street: FIRST STREET

City, Town, Village: CARMEL

Agency: CARM

Plate #

State

Event Type for Police

E911

Desc: For Police Type

Priority

Police

Fire

EMS

Name: JOEL SMITH

Role: CALLER

Address: 44

Street: FIRST STREET

City, Town, Village: CARMEL

Agency: CARM

Plate #

State: NY

Phone: 432-7096

AC: 914

Command

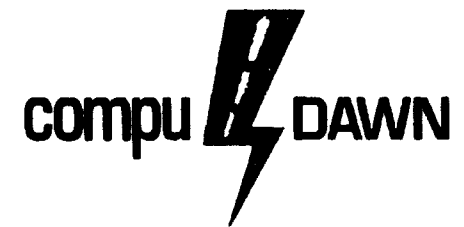
PrePlan Units Warnings Notes History GeoInfo

File Hold E911\_1

Cancel Mail Pv E911\_2

# Mapping Interface

- VCAD automatically displays location of event and available units.
- Provides quicker and more effective resource deployment.
- The dispatcher can ***zoom*** the map to give greater details to responding units.
- Locations of various past events can be displayed providing crime analysis.



# AVL

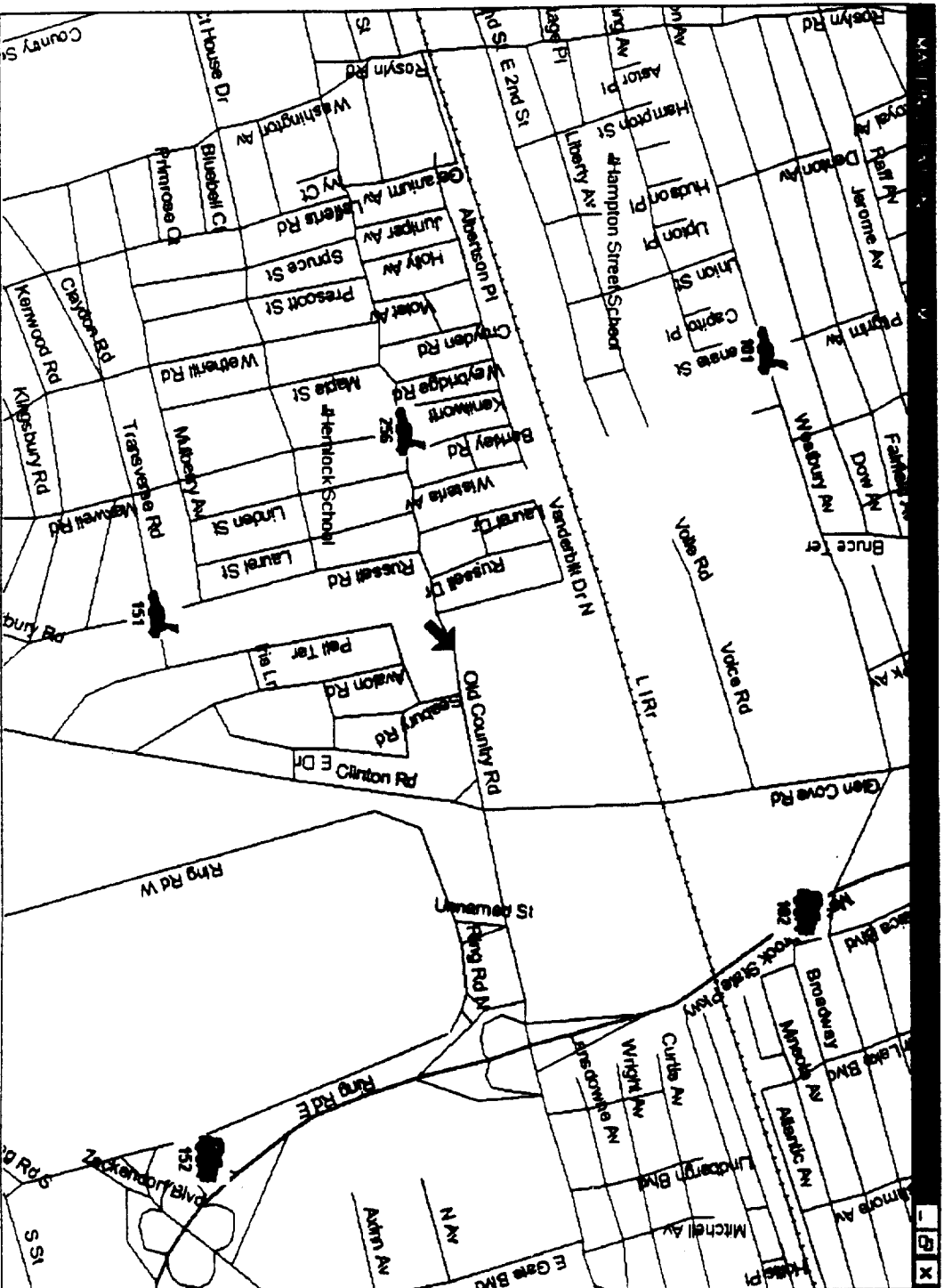
## Automatic Vehicle Location

- Automatically transmits location of vehicles and event to headquarters where they are tracked visually.
- Gives management and dispatchers easy visual representation.
- Provides real-time response of vehicles to an event.
- Increases officer safety and productivity.
- Provides management with enhanced supervisory capabilities.



# AVL - Mapping

## Automatic Vehicle Location

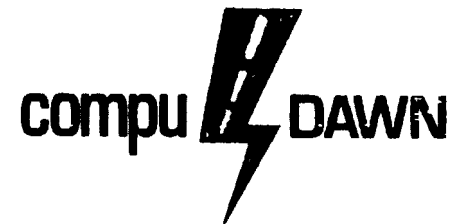


# **AMO**

## **ALECS Mobile On-line**

### **A Virtual Office in the Car**

- All files can be accessed and updated mobile.
- Messages and replies are transmitted as data; provides security and privacy.
- Text to speech and voice recognition commands.
- Photo imaging/mug shot of persons can be transmitted individually or broadcast for rapid distribution.
- DMV, state accident and incident reports can be completed and filed from the field.
- Increased officer safety and time in the field.





# **Local, State & NCIC Interface**

- Interface to crime information databases from all workstations.
- Users are provided menu options for various inquiries: driver's information, criminal history, etc.
- Delivers responses to an AMO laptop, no need for dispatcher intervention, thus providing faster response to in-field requests.
- Frees dispatcher's time, while simultaneously giving Police Officer important information.
- Increases traffic summonses and arrests.

